

REMARKS

Claims 7, 8, 10-17, 19-27, 29, and 30 are currently pending. In the final Office Action of January 23, 2006, all claims were rejected under 35 U.S.C. §103(a) as being unpatentable over Figure 1 of the present application (herein after "PA") in view of Meyer et al. (U.S. Patent No. 5,283,941). As will be addressed below, claim 23 was canceled. Hence, claims 7, 8, 10-17, 19-22, 24-27, 29, and 30 are now pending.

With respect to claims 7, 17, 26, and 27, the Office Action asserted that "Meyer et al. disclose a rotor assembly (10)...wherein the joint assembly has securing surfaces that are configured to essentially eliminate singularity points along a joint of the joint assembly (see abstract)." However, not only does Meyer et al. fail to teach or suggest such, Meyer et al. actually teaches away from the claimed system by teaching the use of similar (not dissimilar) materials, which give rise to the potential for the claimed singularity points. Contrary to the Office Action, Meyer et al. does not teach or suggest any joint that is substantially free of singularities.

First, the Specification explicitly states, "Singularity-free" means that when torque causes member 12 to rotate about a central axis 16 through member 12, the resulting stresses provided by the solution of the theory of elasticity problem are finite over the whole joint assembly structure, including all locations where one may typically expect infinitely large stresses, such as angular points and the ends of the joint." ¶[0024]. Accordingly, the present invention significantly reduces the likelihood of joint failure between members of dissimilar material by creating a bond that is essentially "singularity free".

While Meyer et al. (or any system) would obviously desire to be "singularity-free", it teaches that such is achieved using similar (not dissimilar) materials – i.e. rotor bars and end rings both formed of chrome copper alloy or both formed of copper, copper alloys. See col. 1, ll. 19-40. To this end, Meyer et al. does not have to deal with the difficulties presented when joining or bonding dissimilar materials, such as the present invention seeks to overcome. Rather, Meyer et al. is focused on producing joints without unduly weakened bonds by controlling "overaging or overaged temperatures." See col. 1, ll. 34-40 and col. 2, ll. 23-27. Meyer et al. does not teach or suggest the use of dissimilar materials and; hence, can easily create bonds that are substantially free of singularities because it explicitly teaches the bonding or brazing of *similar* materials.

On the other hand, the claimed invention is clear that "dissimilar" materials are being bonded through a join that is essentially "singularity-free." In fact, claims 14 and 24 make clear that one of the dissimilar materials is a thermal insulator and the other material is a metal. The Office Action concludes that "the proposal in combination of PA

Serial No.: 10/761,716

and Meyer et al. disclose one of the materials is a thermal insulator and the other material is metal.”

However, the Office Action conspicuously failed to include any citation to support this conclusion. In fact, when addressing claims 8, 10, 13-16, 20, 21, 23-25, 29, and 30, the proffered rejections provide no analysis of or citation to the prior art to support any rejection. Rather, the rejections are presented as unsubstantiated conclusions. In this regard, should the Examiner find this Amendment unsatisfactory to place the application in condition for allowance or, alternatively, requiring new a search and consideration, Applicant respectfully requests that a detailed rejection of these claims be provided so that Applicant can be afforded the opportunity to address the Examiner’s interpretation and application to the claimed invention.

Nevertheless, Applicant has amended the claims to clarify the invention and these points as well as to improve readability. In particular, Applicant has amended the claims to clarify that the joint assembly includes a bond formed between at least two members formed of *dissimilar* materials that is “substantially free” or that “essentially eliminates” singularities.

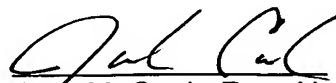
For at least these reasons, Applicant believes that claims 7, 8, 10-17, 19-22, 24-27, 29, and 30 are patentably distinct from the art of record. Therefore, Applicant respectfully asserts that all rejections presented in the Office Action have been overcome. Accordingly, the application is in condition for allowance and timely issuance of a Notice of Allowance is respectfully requested.

However, should the Examiner find this Amendment unpersuasive, Applicant requests a subsequent Office Action (and not merely and Advisory Action) so that Applicant will be afforded the required opportunity to respond to the new basis of rejection present with respect to claims 7, 8, 10-17, 19-22, 24-27, 29, and 30, as required MPEP §706.07(a) and (d). As always, the Examiner is invited to contact the undersigned at the telephone number appearing below if such would advance the prosecution of this application.

Respectfully submitted,

BORIS A. SHOYKHET

Date: 3/21/00

By: 
Jack M. Cook, Reg. No. 56,098
Attorney for Applicant
QUARLES & BRADY, LLP
411 East Wisconsin Avenue
Milwaukee, WI. 53202-4497
(414) 277-5405